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ABSTRACT

A study involving 9 male and 109 female graduate students in educational psychology, who are or have been teachers, was conducted to investigate the relationship between teacher burnout and personality type, self-perceptions, and critical thinking ability. Subjects included 23 blacks and 95 whites, and the mean age of the sample population was 34.12 years. Three types of burnout--emotional exhaustion, depersonalization, and personal accomplishment--were measured by the Maslach Burnout Inventory, and three standardized tests were used to yield independent or combined predictions of stress factors: (1) the Watson-Glaser Test of Critical Thinking; (2) the Myers-Briggs Type Inventory; and (3) the Tennessee Self-Concept Scale. Regression analyses and analyses of variance were performed to yield any available predictors and to validate the significance of their prediction. Results provide significant predictive associations between teacher stress and specific variables related to personality type, demographics, and perceptions of the self. A more salient finding was that teachers with higher self-concepts and extraverted and sensing personality types were more resistive to stress and more likely to maintain a sense of personal accomplishment while working under pressure. Conversely, it was found that teachers with personalities weighted toward the feeling and perceptual type were significantly more likely to suffer from stress. (TJH)

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The Prediction of Teacher Burnout Through Personality Type, Critical Thinking, and Self-Concept

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Abstract

This investigation of factors related to teacher stress or burnout has produced significant predictive strength of specific variables related to personality type, demographics, and perceptions of one's self. A more salient finding was that teachers with higher self-concepts, Extraverted and Sensing personality types, were more resistive to stress and more likely to maintain a sense of personal accomplishment while working under pressure. Conversely, it was found that Feeling and Perceptual type were significantly related to high stress.

The Prediction of Teacher Burnout Through Personality Type, Critical Thinking, and Self-Concept

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Teacher burnout is a crucial concern of education. Classroom teachers are faced with many problems, including an increase in the number and severity of discipline problems, an increase in community discontent with the operation of its schools, the threat of job security as student populations decrease, and an increase in vandalism and violence. These factors along with many others are driving teachers away from the classroom.

But why are some teachers able to handle the pressures associated with teaching while others are not able to cope with them? Are not all teachers faced with similar environmental, interpersonal, and intrapersonal stress factors? Is there a fundamental difference between those who are able to cope and those who are not? It is the contention of this study that several underlying factors may affect teacher burnout.

Purpose

The purpose of this study is to investigate the relationship between personality type, self-perceptions, critical thinking ability, and teacher burnout. More specifically, this investigation will focus on the following research questions:

1. What relationships are there between the demographic variables of the Maslach Burnout Inventory (MBI), and the EE, DP, and PA Scales of the MBI. What demographic variables are related to the Watson-Glaser Critical Thinking Scales,

the Myers-Briggs Type Inventory, and the Tennessee Self-Concept Scale?

2. Which type on the Myers-Briggs Type Inventory has the highest level of burnout?

3. Are there relationships between the three Maslach burnout subscales and the Myers-Briggs Type Inventory measures, the Watson Glaser Critical Thinking Scales, and the Tennessee Self-Concept Scale?

4. Which of the three scales, Myers-Briggs Type Inventory, Tennessee Self-Concept Scale, Watson-Glaser Test of Critical Thinking, acts as the best single predictor of the three burnout scales (EE, DP, and PA)?

Review of Literature

Burnout in the teaching profession has been increasingly receiving both public and professional attention. Numerous articles can be found relating burnout to various factors such as: work climate, age, education, work experience, job dissatisfaction, job alienation, violence, vandalism, disruptive students, inadequate salaries, changing student and community attitudes toward education, and poor relationships within the schools. Even with this increased attention, only a limited number of empirical investigations have been reported.

Gold (1982) and Schwab and Iwanicki (1982) examined the relationship between select teacher background variables and aspects of teacher burnout. Three types of burnout--emotional exhaustion, depersonalization, and personal accomplishment were measured by the Maslach Burnout Inventory. Both studies revealed younger teachers, in comparison with older teachers, were inclined to express perceptions indicating both greater amounts of emotional exhaustion and higher degrees of depersonalization. A possible explanation offered by the researchers to explain why younger teachers experience feelings of burnout more often than older teachers is that younger teachers have an unrealistic understanding of the profession. When they find out their expectations cannot be met through teaching, the job becomes a source of stress and frustration.

Another area that explains a significant amount of burnout is grade level taught. Teachers working with early adolescents in junior high and middle schools had more feelings of stress and burnout than the teachers who taught in elementary schools (Farber, 1984; Schwab and Iwaniciki, 1982). Students of junior high and middle schools appear to be more stress inducing in a working relationship than are students in the younger elementary grades.

Halpin, Harris, and Halpin (1985) studied the relationship between the locus of control of teachers and five sources of stress--professional inadequacy, principal/teacher professional relationships, collegial relationships, group instruction, and job overload. Findings in this study indicate that teacher locus of control is related to teacher stress. Group instruction made the greatest contribution to the multiple correlation relationship found in this study. Group instruction, professional inadequacy, and principla/teacher professional relationships were all related to locus of control. The relationships between locus of control and the stress measures of job overload and collegial relationships, respectively, were not significant as was true for sex and age.

Teachers experiencing the least stress were those who felt that they were professionally capable of helping their students learn, and they had been given the responsibility of doing so. They were teachers with an internal locus of control.

Those teachers experiencing the most stress were those with an external locus of control. This may be due to the fact that these teachers perceive much of their environment as being under the control of complex, unpredictable forces, and they, feeling out of control, expreience stress.

A study by Garden (1985) provided credence to the belief that personality type may be related to burnout. Confining her study to the dimension of Thinking and Feeling on the Myers-Briggs Type Inventory, she found that considerably more

negative feelings were found in the Feeling types experiencing burnout than in the Thinking types.

Using path analytic methods as well as regression analysis, Hubert, Gable and Iwanicki (1984), found stress among teachers to be related to the organizational health of the schools. Such factors as resource utilization, power equalization, and morale were significant predictors of stress.

Finally, it should be pointed out that stress factors seem to have reached faculties in higher education as well as elementary and secondary education. Seiler and Pearson (1984-85) studied dysfunctional stress among university faculty. In the literature, they found considerable support for the conclusion that personality traits play a significant role in an individual's reaction to stress (Cherry, 1978; Cooper & Marshall, 1976; Freudenberger & Richelson, 1980). However, Pines and Maslach (1980) gathered results that pointed more to job conditions and pressures than personality. The Seiler and Pearson study seemed to have two glaring weaknesses, i.e., instrumentation that did not have standardization rationale, and the use of discriminant analysis instead of regression analysis. Consequently, the prediction values were admittedly weak. In essence, this and other studies led us to believe that predictor variables may come forth if standardized instrumentation and a different approach to analysis was employed.

Method

Sampling. The sample of the study consisted of 118 graduate students enrolled in Educational Psychology courses. There were 9 males and 109 females. The racial mix consisted of 23 black and 95 white. The mean age of the entire sample was 34.12 years. Additional demographic data is shown in Table 1.

Instrumentation. Three standardized instruments were chosen to yield independent or combined predictions of stress factors in educators. For a measure of self-concept, we utilized the Tennessee Self-Concept Scale.

Personality type was measured by the Myers-Briggs Type Inventory. The Watson-Glaser Critical Thinking Scales elicited a measure of critical or higher order thinking. We construed teacher burnout or stress as an important dependent variable as measured by the Maslach Burnout Inventory (MBI). The MBI has three frequency measures of stress: Emotional Exhaustion, Depersonalization, and Personal Accomplishment.

Procedure. Subsequent to testing procedures using the four instruments indicated, data was processed with an SPSS-X Release 2 package on the Sperry Univac 1100 computer. Regression analyses and ANOVA were performed to yield any available predictors and to validate the significance of their prediction.

Results and Interpretation. Our first research question was an effort to determine what the demographic variables of the MBI, shown in Table 1, might relate to the three burnout scales of EE, DP, and PA. In addition, we wanted to determine if those same demographic variables are related to the Watson-Glaser Test-Critical Thinking Scales, the Myers-Briggs Type Inventory and the Tennessee Self-Concept Scale. Table 2 indicates the number of months on the job as an educator as the only demographic variable to predict one of the burnout scales. In this regression analysis, the longer the individual stayed in the profession, the less the sense of personal accomplishment.

The second part of our first research question directed us to look at the predictive relationship of the Maslach demographic variables to self-concept, personality type, and critical thinking. Although critical thinking and self-concept measures did not enter the regression, Table 3 indicates the rather strong manner in which the demographics related to the personality type measures of the MBTI. The first obvious generalization that emerges as one examines the data is that being in educational work (teaching) over a number of months bears a number of relationships, some of which are negative in a correlational sense as evidenced by negative Betas.

Eight regression analyses were performed on the eight polarities of the MBTI, and consolidated into Table 3. The Extraversion showed that male and female choices of Extraversion were positive in direction and the number of hours worked tended to raise the choice of E; however, as the number of those seeking or leaving graduate degrees at the time decreased, Extraversion increased. There seems to be a hint from this that reaching for higher education may redirect one's preferences away from E toward I. The negative Beta on Step No. 1 shows that as the number of subjects naming work areas other than education increased, the less they chose Extraversion. In contrast, the regression on I suggests the more likelihood of their choosing I.

Sensing types were highly associated with those in education. The longer the number of hours worked each week in teaching and the larger the number seeking graduate degrees, the greater the probability of being a Sensing rather than (N) Intuitive type. The authors view this finding as somewhat disturbing since it suggests this representative sample of today's and tomorrow's teachers lean substantially more toward fixed ideas and practicalities as contrasted with preference for looking at possibilites and creative ideation.

The Thinking type was regressed by sex, race, and hours worked. Negative Betas appeared in all three Steps of the regression, indicating an increase in numbers of females, whites, and hours worked per week was less associated with Thinking and more associated with Feeling type.

Judgmental type was predicted by religion and race. As Protestant preferences increased, the preferences for J increased. On the other hand, as the preferences for J went up with whites, it tended to go toward Perceptual type with blacks. As the number of months in educational work increased the choices for P went down, indicating less spontaneity and more fixed ideas being preferred by the sample. Along with the finding regarding Sensing type, when one examines Table 4 and sees the greatest burnout rates of EE and DP includes P types but not

of J types, it augurs the suggestion that while Judgmental and Sensing types have more fixed ideas they seem to be more resistive to Emotional Exhaustion and Depersonalization. However, the P types have a greater sense of Personal Accomplishment.

The second question asked to differentiate the personality type having the highest measure of burnout. Table 4 exhibits INFP type as having the greatest Emotional Exhaustion and ISFP with the highest Depersonalization. The type with the highest sense of Personal Accomplishment was ESTP. INFP types are enthusiastic and often undertake more than they can handle, thus prone to more exhaustion. The ISFP types are sensitive and modest, and more likely to perceive their pressures of teaching as having diminished them personally. The ESTP types tend not to rush or worry very much; consequently, they have a greater sense of accomplishment.

Question three asked what predictive relationships may exist between EE. DP, PA, and the variables associated with the instrumentation in the study. Table 5 and Table 6 show EE predicting both Extraversion and Introversion. As one's level of Extraversion goes up, EE goes down. As one's level of Introversion goes up, EE rises. Thus, I types seem more associated with burnout.

The final research question asked which of the instruments used may be the last single predictor of burnout. Table 7 evidences the Tennessee Self-Concept Scale as the best predictor of all three types of burnout. The MBTI (Introversion Type) was a very good predictor of Emotional Exhaustion. Critical Thinking did not enter the regression.

Summary

This investigation of factors related to teacher stress or burnout has produced significant predictive strength of specific variables related to personality type, demographics, and perceptions of one's self. In addition, the research has produced some general findings which augur for careful screening of

those entering the education profession and counseling for those who are now teaching and experiencing stress.

A more salient finding was that teachers with higher self-concepts, Extraverted and Sensing personality types, were more resistive to stress and more likely to maintain a sense of personal accomplishment while working under pressure. Conversely, it was found that Feeling and Perceptual type were significantly related to high stress.

The high association of educators with Sensing Type rather than Intuitive (N) raises a question as to whether the teaching profession may be attracting a preponderance of teachers with preferences for fixed ideas as opposed to creative possibilities. The Sensing Types, however, seem to experience less emotional exhaustion and have a greater sense of personal accomplishment.

Table 1

Means and Standard Deviations of MBI Demographic Variables

N=118 Graduate Students in Educational Psychology

Label	Value Label		Frequency	%	Mean	Mode	Standard Deviation
Sex	(Male)	1	9	7.2			
	(Female)	2	109	92.4	1.924	2.00	.267
Age					34.12	25.00	7.75
Race	(Black)	2	23	19.5			
	(White)	5	95	80.5	4.415	5.00	1.193
Religion							
	(Protestant)	1	91	77.1	1.50	1.00	1.076
	(Catholic)	2	12	10.2			
	(Jewish)	3	2	1.7			
	(Other)	4	9	7.6			
	(None)	5	4	3.4			
Marital Status							
	(Single)	1	23	19.5	1.966	2.00	.703
	(Married)	2	82	69.5			
	(Divorced)	3	9	7.6			
	(Widowed)	4	2	1.7			
	(Other)	5	2	1.7			
Years Married to Current Spouse					10.494	1 yr.	7.726
No. of Children at Home					2.05	2.00	1.227
Highest Degree Earned							
	(BS/BA)	2	90	76.3	2.254	2.00	.475
	(MS/MA)	3	26	22.0			
	(Ed.S.)	4	2	7			
Primary Work Area							
	(Mental Health)	2	4	3.4	3.203	3.00	1.121
	(Education)	3	108	91.5			
	(Sociology)	4	1	.9			
	(Counseling)	8	3	2.5			
	(Pastoral)	9	2	1.7			
Position							
	(Staff)	1	13	11.0			
	(Manager)	2	3	2.5			
	(Adm.)	3	4	3.4			
	(Trainer)	4	5	4.2			

Table 1 Continued

(Private) 5	2	1.7			
(Teacher) 6	91	77.1	5.144	6.00	1.716
Hours Worked Per Week					
(50+) 1	6	5.1			
(40-49) 2	8	6.8	3.508	4.00	1.018
(30-39) 3	38	32.2			
(20-29) 4	55	46.6			
(-20) 5	10	8.5			
(-10) 8	1	.8			
No. of Months on Job			62.814	12.00	61.470
No. of Months at this Type of Work			86.093	12.00	72.135

Table 2

Regression Analysis of Demographic Variables on MBI Burnout Scales (EE, DP, PA)

Variable Entered on Step No. 1 = Months Worked
Dependent Variable = MBI (PA)

Multiple R	.33220
R Square	.11035
Adjusted R Square	.06325
Standard Error	6.12668

ANOVA

	DF	Sum of Squares	Mean Squares
Regression	1	242.11681	242.11681
Residual	52	1951.88319	37.53622

F = 6.47502 Sig. F = .0141

Beta = -.332

Table 3

Regression Analysis of Demographic Variables on Myers-Briggs Type Inventory Types (Dependent Variables)

Demo Variables	Type E	I	S	N	T	F	J	P	Step 1	2	3	4	Mul. R	DF. Reg.	Res.	F.	Sig. F.	Beta
Sex	X									X			.345	2	114	7.73	.0007	.202
			X						X				.338	1	116	14.99	.0002	-.338
Age				X						X			.485	2	115	17.71	.0000	.370
Race			X							X			.509	2	115	20.19	.0000	-.385
				X					X				.318	1	116	13.08	.0004	.318
					X					X			.302	2	115	5.78	.0041	-.197
Religion					X				X				.229	1	116	6.43	.0125	.229
Mar Stat																		
Yrs Mar																		
Children																		
Degree	X											X	.432	4	112	6.42	.0001	-.191
		X									X		.396	3	114	7.07	.0002	.180
Typework	X								X				.290	1	115	10.59	.0015	-.290
		X							X				.213	1	116	5.55	.0201	.213
		X							X				.292	1	116	10.85	.0013	.292
					X					X			.316	2	115	6.39	.0023	-.203
Position			X						X				.352	1	116	16.47	.0001	-.352
Hrs. Work	X										X		.393	3	113	6.91	.0003	.196
		X								X			.354	2	115	8.25	.0004	-.207
			X								X		.438	2	115	13.69	.0000	.268
				X						X			.537	3	114	15.47	.0000	-.174
Month Job					X						X		.512	3	114	13.55	.0000	.168
Month Wk		X									X		.483	3	114	11.56	.0000	-.207
						X			X				.243	1	116	7.32	.0078	-.243

Table 4

Mean Burnout Scores for MBTI Types

MBTI Type	MBI(EE)	MBI(PA)	MBI(DP)
ISTJ	25.00	40.00	12.00
ISFJ	16.77	35.00	6.38
INFJ	21.70	39.43	6.20
INTJ	26.40	36.20	4.40
ISTP	21.50	38.50	6.17
ISFP	25.00	38.00 (ISFP)	14.00**
INFP (INFP)	28.33**	41.67	11.67
INTP	24.89	37.33	6.11
ESTP	15.50 (ESTP)	45.00**	6.50
ESFP	20.10	35.20	6.30
ENFP	14.75	42.87	3.13
ENTP	9.67	44.33	2.50
ESTJ	15.40	35.20	3.60
ESFJ	16.75	41.56	4.31
ENFJ	14.11	39.44	5.25
ENTJ	20.33	39.00	9.00

Table 5

Regression Analysis of Maslach Burnout Inventory
Variables (EE, DP, PA) on Myers-Briggs Type Inventory

Variable Entered on Step No. 1 = (Emotional Exhaustion)
Dependent Variable = MBTI (Extraverted Type)

Multiple R	.24070
R. Square	.05794
Adjusted R-Square	.04945
Standard Error	8.42759

ANOVA

	DF	Sum of Squares	Mean Square
Regression	1	484.85949	484.85949
Residual	111	7883.68918	71.02423

F = 6.82668 Sig. F = .0102

Beta of MBIEE = -.240

Table 6

Regression Analysis of Maslach Burnout Inventory Variables (EE, DP, PA) on Myers-Briggs Type Inventory

Variable Entered on Step No. 1 = (Emotional Exhaustion)
Dependent Variable = MBTI (Introversion Type)

Multiple R	.29918
R Square	.08951
Adjusted R Square	.08138
Standard Error	6.66546

ANOVA

	DF	Sum of Squares	Mean Square
Regression	1	489.17911	489.17911
Residual	112	4975.97878	44.42838

F = 11.01051 Sig. F = .0012

Beta = .299

Table 7

Regression Analysis of Tennessee Self-Concept Scale, Myers-Briggs Type Inventory, and Watson Glaser Critical Thinking Scale on the Maslach Burnout Inventory Scales of EE, DP, and PA.

Pred Variable	Dep. Variable	Step 1	Step 2	Mult R	DF Reg.	DF Res.	F.	Sig. F.	Beta
Tenn. S.C. Total	MBI (DP)	X		.263	1	111	8.28	.0048	-.263
Tenn. S.C. Total	MBI (PA)	X		.325	1	115	13.63	.0003	.325
Tenn. S.C. Total	MBI (EE)	X		.335	1	114	14.47	.0002	-.335
MBTI Intro-version	MBI (EE)		X	.396	2	113	10.51	.0001	.221

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